

What is claimed is:

1 1. A network sales system comprising
2 a plurality of buyer computers and at least one
3 merchant computer interconnected by a communications
4 network,
5 means at each merchant computer for maintaining and
6 providing a database of digital advertisements comprising
7 means for storing said digital advertisements, each
8 digital advertisement including a product abstract,
9 means for communicating a digital advertisement to a
10 buyer computer over said network in response to a network
11 request from said buyer computer,
12 means at each buyer computer for requesting,
13 displaying, and responding to digital advertisements
14 comprising
15 means responsive to a user inquiry for selecting a
16 merchant computer and obtaining a digital advertisement for
17 a product from said database of advertisements at said
18 merchant computer,
19 display means for displaying said advertisement,
20 purchase means responsive to a user request for
21 communicating a purchase message to said merchant computer,
22 account identification means for transmitting the
23 user's account information to said merchant computer,

24 means, at said merchant computer, comprising
25 authorization means to authorize said purchase
26 message by sending messages into a financial system network,
27 fulfillment means to send said product to user
28 conditional on approval of said authorization means.

1 2. The network sales system of claim 1 further
2 wherein said authorization means at said merchant computer
3 comprises

4 means for communicating a missing payment
5 information request message to said buyer computer to obtain
6 missing payment information,

7 means for receiving said missing payment information
8 from said buyer computer,

9 means for authorizing said purchase message by
10 sending messages into a financial system network,
11 and said account identification means at said buyer
12 computer comprises

13 means responsive to said missing payment information
14 request message to query the user for additional payment
15 information,

16 means to send said additional payment information to
17 said merchant computer.

1 3. The network sales system of claim 1 further
2 wherein said account identification means comprises
3 means for assembling a payment order,
4 means for sending said payment order to a network
5 payment system for authorization,
6 and wherein said authorization means comprises
7 means for verifying that said payment order has been
8 previously authorized by said payment system.

1 4. An electronic sales system comprising
2 means for storing a database of digital
3 advertisements, each digital advertisement for a product
4 including a program,
5 means for communicating a digital advertisement to a
6 buyer computer,
7 means at said buyer computer for displaying and
8 responding to said digital advertisement comprising
9 display means for displaying said digital
10 advertisement by executing a portion of said advertisement
11 as a program and performing actions as specified by said
12 program,
13 purchase means responsive to a user request for
14 communicating a purchase message to a merchant computer,
15 means, at said merchant computer, comprising
16 fulfillment means to send said product to user.

1 5. A network payment system comprising
2 a plurality of client computers and at least one
3 payment computer interconnected by a public packet switched
4 communications network,
5 means at a client computer for performing payment
6 comprising
7 payment specification means for constructing
8 a payment order from a sender to a beneficiary,
9 signing means for authenticating said payment
10 order as originating from said sender,
11 means for sending said payment order to a payment
12 computer,
13 means for receiving a payment order authorization
14 message from said payment computer,
15 means responsive to a payment order message at said
16 payment computer comprising
17 verification means for verifying that said sender
18 originated said payment order,
19 authorization means for sending a message into a financial
20 authorization network to verify that said sender has
21 adequate funds or credit and receiving an authorization in
22 response,
23 means for recording said payment order and
24 authorization in a settlement database,

25 response means for sending an authorization
26 message to said client computer,
27 means for sending at least one message into a
28 financial system network to transfer funds from said sender
29 to said beneficiary.

1 6. The network payment system of claim 5 further
2 wherein said payment specification means comprises
3 means for constructing a payment order, said payment
4 order including a delivery address,
5 and said verification means comprises
6 means for verifying that said sender originated said
7 payment order and checking said delivery address against a
8 database of allowed delivery addresses for said sender.

1 7. The network payment system of claim 5 further
2 wherein said response means comprises
3 means for determining allowed delivery addresses for
4 said sender,
5 means for sending an authorization message to said
6 client computer that includes allowed delivery addresses.

1 8. The network payment system of claim 5 further
2 wherein said signing means comprises

3 means for generating the next expected transaction
4 identifier for said sender and using it to create an
5 authenticator,
6 and wherein said verification means comprises
7 means for generating the next expected transaction
8 identifier for said sender, and
9 means for verifying that said authenticator was
10 created using said transaction identifier.

1 9. The network payment system of claim 5 further
2 wherein said signing means comprises
3 means for generating an authenticator using an
4 external device,
5 and wherein said verification means comprises
6 means for verifying that said authenticator was
7 created using said external device.

1 10. The network payment system of claim 5 further
2 wherein said payment specification means comprises
3 means for constructing a payment order from a
4 sender, said payment order including a client computer's
5 network address,
6 and said verification means comprises
7 means for verifying said payment order was
8 constructed at said client computer's network address and

9 checking said client address against a database of allowed
10 client addresses for said sender.

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1 11. The network payment system of claim 5 further
2 wherein said authorization means comprises
3 determination means for determining the necessity
4 for real-time authorization,
5 means for performing real-time authorization
6 conditioned on said determination means.

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1 12. A method for effecting sales over a network
2 sales system having a plurality of buyer computers and at
3 least one merchant computer interconnected by a
4 communications network, encompassing the steps of
5 maintaining and providing a database of digital
6 advertisements at each merchant computer
7 storing said digital advertisements, each digital
8 advertisement including a product abstract,
9 communicating a digital advertisement to a buyer
10 computer over said network in response to a network request
11 from said buyer computer,
12 requesting, displaying, and responding at each buyer
13 computer to digital advertisements comprising the steps of
14 selecting in response to a user inquiry a merchant
15 computer and obtaining a digital advertisement for a product

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16 from said database of advertisements at said merchant
17 computer,
18 displaying said advertisement,
19 communicating in response to a user request a
20 purchase message to said merchant computer,
21 transmitting the user's account information to said
22 merchant computer,
23 authorizing at said merchant computer said purchase
24 message by sending messages into a financial system network,
25 and
26 sending said product to said user conditional on
27 approval from said authorizing step.

1 13. The network sales method of claim 12 further
2 wherein said authorizing step, at said merchant computer,
3 comprises the steps of
4 communicating a missing payment information request
5 message to said buyer computer to obtain missing payment
6 information,
7 receiving said missing payment information from said
8 buyer computer,
9 authorizing said purchase message by sending
10 messages into a financial system network,
11 and said account identification step at said buyer
12 computer comprising the steps of

13 querying the user for additional payment information
14 responsive to said missing payment information request
15 message,
16 and sending said additional payment information to
17 said merchant computer.

1 14. The network sales method of claim 12 further
2 wherein said account identification step comprises the steps
3 of
4 assembling a payment order, and
5 sending said payment order to a network payment
6 system for authorization,
7 and wherein said authorization step comprises the
8 step of
9 verifying that said payment order has been
10 previously authorized by said payment system.

1 15. An electronic sales method comprising the steps
2 of
3 storing a database of digital advertisements, each
4 digital advertisement for a product including a program,
5 communicating a digital advertisement to a buyer
6 computer,
7 displaying and responding to said digital
8 advertisement at said buyer computer comprising the steps of

9 displaying said digital advertisement by executing a
10 portion of said advertisement as a program and performing
11 actions as specified by said program,
12 communicating a purchase message in response to a user
13 request to a merchant computer,
14 sending at said merchant computer said product to
15 user.

1 16. A network payment method comprising the steps
2 of interconnecting a plurality of client computers and at
3 least one payment computer by a public packet switched
4 communications network,
5 performing payment at a client computer comprising
6 the steps of
7 constructing a payment order from a sender to a
8 beneficiary,
9 authenticating said payment order as originating
10 from said sender,
11 sending said payment order to a payment computer,
12 and receiving a payment order authorization message
13 from said payment computer,
14 responding to a payment order message at said
15 payment computer comprising the steps of
16 verifying that said sender originated said payment
17 order,

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18 sending a message into a financial authorization
19 network to verify that said sender has adequate funds or
20 credit and receiving an authorization in response,
21 recording said payment order and authorization in a
22 settlement database,
23 sending an authorization message to said client
24 computer,
25 and sending at least one message into a financial
26 system network to transfer funds from said sender to said
27 beneficiary.

1 17. The network payment system of claim 16 further
2 wherein said constructing step means comprises the steps of
3 constructing a payment order, said payment order
4 including a delivery address,
5 and said verifying step comprises the steps of
6 verifying that said sender originated said payment
7 order, and
8 checking said delivery address against a database of
9 allowed delivery addresses for said sender.

1 18. The network payment method of claim 16 further
2 wherein said second sending step comprises the steps of
3 determining allowed delivery addresses for said
4 sender,

5 and sending an authorization message to said client
6 computer that includes allowed delivery addresses.

1 19. The network payment method of claim 16 further
2 wherein said authenticating step comprises the steps of
3 generating the next expected transaction identifier
4 for said sender and using it to create an authenticator,
5 and wherein said verifying step comprises the steps
6 of
7 generating the next expected transaction identifier
8 for said sender,
9 and verifying that said authenticator was created
10 using said transaction identifier.

1 20. The network payment method of claim 16 further
2 wherein said authentication step comprises the step of
3 generating an authenticator using an external
4 device,
5 and wherein said verifying step comprises the steps
6 of
7 verifying that said authenticator was created using
8 said external device.

1 21. The network payment method of claim 16 further
2 wherein said constructing step comprises the step of

3 constructing a payment order from a sender, said
4 payment order including a client computer's network address,
5 and said verifying step means comprises the steps of
6 verifying said payment order was constructed at said
7 client computer's network address,
8 and checking said client address against a database
9 of allowed client addresses for said sender.

1 22. The network payment method of claim 16 further
2 wherein said second sending step comprises the steps of
3 determining the necessity for real-time
4 authorization,
5 and performing real-time authorization conditioned
6 on its determined necessity.